ENVIRONMENTAL PUBLIC HEALTH TRACKING
ADVISORY GROUP MEETING
November 13, 2003

The next meeting is scheduled for Thursday, February 26, 2004, from 9 a.m. to 12 p.m.

Attendees:

Ron Caldwell, USGS
Rick Chiotti, MT Office of Public Instruction
Dan Dennehy, Butte-Silver Bow Health Dept.
Rachelle Deskins, USFDA/MEHA
Tom Ellerhoff, DEQ
Gail Gutsche, Montana State Legislator
Dana Headapohl, Occupational & Environmental Medicine, St. Patrick's Hospital *via phone*
Roman Hendrickson, MD
Heidi Hickes, MT Department of Agriculture
Denise Higgins, DPHHS/Birth Outcomes Monitoring
Jim Hill, MT NRIS
Andrij Holian, UM Center for Environmental Health Sciences
Kammy Johnson, DPHHS/Epidemiologist
Chris Korhonen, DPHHS/EPHT Epidemiologist
Rick Larson, Butte-Silver Bow Health Dept.
Debbie Lemons, DPHHS/Tumor Registry
Marjean Magraw, DPHHS/EPHT Coordinator
Judy Murphy, MT Dept. of Labor & Industry
Kristen Nei, American Cancer Society Representative
Lou Olcott, DPHHS/Bio-monitoring Project
Bill Olsen, US Fish & Wildlife Service
Joanne Oreskovich, BRFSS Coordinator
Robert Shepard, American Cancer Society Representative
Mike Spence, DPHHS/State Medical Officer
Darren Steiner, DPHHS/Operations & Tech. Division
Diana Vanek, UM CEHS
John Wardell, US EPA

Additional Attendees:
Chris Deveny, Consultant for Community EH Assessments
Jane Fournier, Northrop Grumman
JoAnn Weber, Northrop Grumman
Leah Dreyer, DPHHS/EPHT

The meeting opened with a welcome by Marjean Magraw. Attendees were asked to introduce themselves and their representation. Marjean stated the agenda of the meeting, and then gave an update on the EPHT project.

EPHT PROJECT UPDATE

Marjean outlined the following accomplishments of the EPHT project since the last meeting:

- A project list serve was created thanks to Dr. Shepard.
- Additional Tribal representation to the Advisory Group was solicited by sending letters to all Tribal Health Officers; James Eastlick of Rocky Boy Tribe is interested but is unable to attend today.
- Two members of the Advisory Group volunteered to attend the national Physicians for Social Responsibility (PSR) conference in Washington, D.C. Judy Murphy and Dr. Roman Hendrickson attended. Dr. Hendrickson is a new member of the Advisory Group.
- The EPHT project provided resources to Gail Gray, Director of Montana DPHHS, to attend the EPA conference in Denver on Children's Environmental Health.
- Currently working on setting up an EPHT website.
- New Staff hired: Christine Korhonen is the EPHT Epidemiologist. Leah Dreyer is the Administrative Assistant.

Information Technology and Data Assessment

- Marjean explained the current contract work with Northrop Grumman Mission Systems. They are providing an overview of IT systems, developing an inventory template for databases and will provide technical recommendation on linking options. Northrop Grumman will present a progress report this morning.

Environmental Health Concerns and Capacity Assessment

Marjean outlined the four-part assessment currently in progress.
1) Survey of county and tribal public health capacity and concerns. Draft surveys are currently available, if anyone is interested in providing feedback. Dr. Wade Hill of MSU Bozeman College of Nursing is conducting these surveys.
2) Twenty questions on environmental health have been added to the 2004 Behavior Risk Factor Surveillance Survey (BRFSS). This survey will provide responses from approximately 4000 Montana citizens.
3) A preliminary Advisory Group survey of environmental health priorities took place at the last meeting. This was only preliminary and we will be revisited in the future.
4) EPHT has funded 11 sites to conduct community-based environmental health needs assessments. The sites are: Cascade, Flathead, Hill, Glacier, Butte-Silverbow, Lewis and Clark, Ravalli, Yellowstone, and Dawson County Health Departments, and Ft Peck and Crow Reservations.

Community EH Mini Grants

Marjean explained the background and process of the mini grants for community needs assessments in further detail. A letter requesting interested parties was sent to all tribal and county public health departments; 12 sites responded with initial interest. EPHT will contract with 11 sites providing a one-time award of $12,000 to conduct the assessments. A PACE-EH training (Protocol for Assessing Community Excellence in Environmental Health) was held November 5-6 in Helena. PACE is an assessment tool developed by the National Association of City and County Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC).

Marjean ended by summarizing some of the accomplishments of the EPHT project since the last meeting and noted the following:

- An Information Technology (I.T.) committee has been formed; other committees will be formed on an as-needed basis.
- Will continue to use list serve, email and soon, the website to communicate information. Meeting minutes will be posted on the website.
- Would like input and ideas from the Advisory Group for data linkage pilots over the next year.

PROGRESS REPORT FROM NORTHROP GRUMMAN

Jane Fournier and JoAnn Weber of Northrop Grumman Mission Systems presented on the current status of the EPHT Information Technology (IT) assessment. Jane stated the three major goals of the IT assessment project:

1) Infrastructure assessment. At this phase of the project, the assessment is confined to DPHHS, DEQ, and NRIS.
2) Database inventory template.
3) Database linking options and plans document.

IT Infrastructure Assessment
JoAnn identified several recommendations of the IT infrastructure assessment:

- Standardize the data collected, incorporate national standards.
- Involve the programs in the process; make sure the goals of the project are understood.
- Develop standard data sharing protocols.
- Ensure compatible hardware and physical infrastructure.
- Capitalize on the other data sharing efforts underway, such as the DEQ and EPA data sharing, and the experiences of other states working on the same process.

Jane Fournier summarized the first deliverable: Northrop Grumman has finished the collection and analysis of the DPHHS & DEQ infrastructure information; collected and analyzed all the relevant state and agency policies and guidelines; and almost completed the document itself, which lays out Northrop Grumman's analysis and findings.

Database Inventory Template
Jane explained that the second deliverable is a database inventory survey that the EPHT project plans to distribute first to state agencies, and then to other organizations.

- The point of the inventory template is to gather information about the data stored in various applications and datasets relevant to environmental health.
- The questions in the survey are designed to meet Montana's needs in assessing what the data is, and if it can be brought into a common system usable by EPHT.
- The questions were constructed to ensure consistent responses.
- The survey was made as easy as possible to answer, to ensure response.
- Information about data to be shared with CDC and other EPHT states was included in the survey.
- The survey will first be distributed to state agencies, and then to other applicable organizations.

Jane gave an update on the current status of the Database Inventory Template: the existing survey examples have been analyzed; a recommended inventory template has been reviewed; a set of possible electronic delivery options has been established; an electronic version of the survey will be developed and piloted within DPHHS and DEQ; needed changes will be made and the final template will be delivered.

Database Linking Options and Plans
Continuing, Jane covered the third deliverable, in which possible solutions will be discussed for data integration. The options will be described in reference to how they fit with NEDSS (National Electronic Data Surveillance System) standards, to ensure future EPHT compatibility with national standards. Strategies for the integration of GIS (Geographic Information System) data will be described. Lastly, relative costs and benefits will be discussed.

Jane summarized the status of the Database Linking Options and Plans:

- Database Linking: currently working on developing and documenting options.
- Will develop a presentation.
- Will deliver final product.

Jane listed the tasks yet to be done, which include completing the IT Assessment document, deciding on a delivery method for the database survey, piloting the database survey, and completing, delivering, and presenting the complete Database Options and Plans document. Before closing, Jane asked if there were any questions or comments.

Kammy Johnson noted that there is a central bio-monitoring program database being developed for the Rocky Mountain States, and it could be of use in database linkage.

NATURAL RESOURCE INFORMATION SYSTEMS (NRIS) LINKING ENVIRONMENTAL DATA

Jim Hill of NRIS opened by expressing how excited NRIS was to be involved with a broader set of agencies; NRIS wants to offer their expertise and experience, and perhaps play a role in linking public health data to environmental or natural resource data.

NRIS was established in1985 by the Montana Legislature as a statutory program, and was designed to simplify the task of locating and acquiring natural resource information. The system is a comprehensive program for the acquisition, storage, and retrieval of existing data relating to the natural resources of Montana.

Jim mentioned that in their last session, the Legislature approved the merger of NRIS with the library part of the State Library, forming the Montana State Digital Library. The Montana State Digital Library will focus on electronic information resources, government information, and other information needed by government and business decision makers. The State Digital Library will not be limited to natural resource information, and it will have improved data discovery, or better linking of publication with agency databases for non-computer professionals

Jim described the NRIS approach to linking data, noting that there are many ways to link data. The first way is to link users to existing data, to let people know what data exists and where to find it. A second way is to link actual datasets together, which is more complicated, more valuable, and more resource-intensive.

Jim presented the datasets available at NRIS, how to integrate them, and how the potential user can discover and use them. He mentioned state and federal agencies that NRIS extracts data from, such as DEQ, FWP, Census and Economic Information Center, and the Bureau of Mines. New data access program applications will be introduced the week of November 17-21, providing GIS professionals new ways to obtain information; the new applications include Web Services and Information Access for GIS professionals.

Jim also showed screen shots from the new GIS data bundler application, and noted that for non-GIS professionals, there is a great deal of information available for use. NRIS is also offering online access to interactive mapping tools. For more information on NRIS, contact Jim at (406) 444-5354, or visit the website at http://nris.state.mt.us

PSR CONFERENCE REPORT

Dr. Roman Hendrickson and Judy Murphy attended the Physicians for Social Responsibility conference in Washington, D.C. on Emerging Links between Chronic Disease and Environmental Exposure. Dr. Hendrickson gave his report earlier on the agenda secondary to a schedule conflict. In his overview he underlined that the key is "*emerging links"* between environmental hazards and health, there is "no smoking gun" as of yet. At the conference, information was presented on Non-Hodgkin's Lymphoma, Diabetes Mellitus, Parkinson's disease, and Lupus. Arsenic and PCB's are being linked with the risk of Diabetes Mellitus; based on this information, Dr. Hendrickson suggested that Diabetes *should* in fact be looked at in relation to an environmental link. There also is emerging evidence linking neurodegenerative diseases and herbicides.

Dr. Hendrickson encouraged finding a better way to monitor chronic diseases. In reference to the examination of water quality, he also urged looking at the issue of total dissolved solvents in water. He noted we currently do not have links with veterinarian and agrarian information, which would be useful, as the health of animals and crops indicate general environmental health. The second day of the conference focused on risk communication with the media, which Dr. Hendrickson found very worthwhile.

Gail Gutsche asked if there were any possible links mentioned with Parkinson's disease or Non-Hodgkin's Lymphoma and PCBs. Dr. Hendrickson said that other than the link between Parkinson's and herbicides, there is not concrete established evidence.

EPA DATA COLLECTION

John Wardell, director of the Environmental Protection Agency (EPA) office in Helena, began by stating that the best way to access EPA data is through their website, www.epa.gov. The data generated by EPA can be divided into two areas of interest: the first is data collected by Montana State agencies, as delegated by the EPA; the second is data collected by EPA programs and initiatives existing only in the EPA database. Another area of data is the Superfund data, which is not always entered into a data system.

EPA has delegated certain programs to State agencies, including the Public Health Program, the Safe Drinking Water Act, the Pollution Discharge System, a pesticide program, and a program on Class 2 Injection Wells. EPA works with Tribal governments and is often involved in addressing health issues on reservations.

The EPA and the state of Montana both have Superfund programs. In the majority of instances, the state collects the information, as EPA deals only with the national priorities list of Superfund sites. John detailed a series of EPA initiatives:

- Child's Health Protection Effort: focuses on protecting children's health and how our regulatory decisions affect that.
- Environmental Justice Program: Looks at communities that bear a "disproportionate share of environmental insults". Examples in Montana include the air pollution in the Lockwood area of Billings, migrant workers in western Montana, and children on reservations at the bottom of the economic ladder coupled with poor public water supply.

John ended by mentioning that Dan Strausbaugh of the Agency for Toxic Substances and Disease Registry (ATSDR), which is now part of CDC has looked at health related issues of the Superfund sites, from not just the clean-up perspective but also the public health perspective. For example, lead in East Helena, the impact of asbestos in Libby, air quality SO_2 issues in Billings, nitrates in the drinking water supply on the Fort Peck reservation, pesticide application in the Bitterroot Valley.

ENVIRONMENTAL HEALTH INDICATORS

Dr. Kammy Johnson, DVM, PhD, CDC Epidemiologist working with EPHT project, reviewed the information on environmental health indicators from the last meeting, and presented potential indicator suites based on the Montana perspective. She noted that choosing an indicator and working along indicator lines is required by the CDC cooperative agreement with EPHT. Indicators provide a system for organizing information; in building the EPHT project, indicators

will help establish objectives, develop case or event definitions, and determine data sources and data collection mechanisms.

There are four types of indicators:

1) Hazard: Identifies exposure potential
2) Exposure: Biologic marker in human tissue identifying exposure
3) Intervention: Program or policy to mitigate exposure
4) Health Effects: Adverse health effects due to exposure

Dr. Johnson reviewed an indicator suite for drinking water, presented at the last meeting. The hazard indicator was trihalomethanes (THMs) in water; the exposure indicator was whether or not THMs in drinking water was linked to the incidence of colon or rectal cancer; the measure used was the diagnosis of colon or rectal cancer; the intervention indicator looked at compliance records for water treatment facilities and whether or not there had been any enforcement action for non-compliance with levels of acceptable THM levels.

Dr. Johnson next outlined two potential indicator suites, specific to Montana: lead in East Helena and pesticides. For lead in East Helena, the hazard indicator is the measure of lead levels in the environment. As an exposure indicator, blood lead levels of children under six are used. Another measure to possibly look for would be learning disabilities and behavioral problems in children exposed to lead. As an intervention indicator, the effects of having mitigated the lead problem in East Helena yards can be looked at.

For the potential indicator suite for pesticides, the hazard indicator is pesticides (insecticides and herbicides) in the environment. The measure used could be the pounds of pesticides applied to agricultural areas, according to records kept at the state or national level. The exposure indicator may be very difficult to measure; the prevalence or incidence of Parkinson's disease in certain areas of the state may be used as potential health effect data. As a way to assess intervention, the number of pesticide application trainings held in specific areas or general awareness about pesticide effects may be used.

Dr. Johnson noted that an indicator topic needs to be selected, as per the CDC cooperative agreement. A measure and a data source for the chosen indicator need to be identified, and the usefulness needs to be evaluated. Dr. Johnson encouraged input from the Advisory Group on the prioritization process. She finished by reiterating that indicators give a framework to determine if linkages are appropriate and meaningful, and if the linkages can be used or not for decision-making.

PSR CONFERENCE REPORT (Continued)

Judy Murphy, State Industrial Hygienist with the Montana Department of Labor, also attended the PSR Conference in Washington D.C. Judy reviewed the conference speakers and the topics they presented.

- Carol Browner, former Administrator of the EPA gave an introductory speech.
- Lynn Goldman, Professor of Environmental Health at Johns Hopkins University presented an exposure history form, which was developed by ATSDR (Agency for Toxic Substances and Disease Registry) and NIOSH (National Institute for Occupational Safety and Health) and is used to establish the medical history of patients.
- Alan Lockwood, M.D., Professor of Neurology, University of Buffalo, spoke about several different studies of the emerging links between Parkinson's disease and pesticides.

- Yutaka Aoki, of the Johns Hopkins School of Public Health, addressed the farming factors that might influence Non-Hodgkin's Lymphoma.
- Matthew Longnecker, Medical Research Officer and Senior Investigator of the National Institute of Environmental Health Sciences spoke on Diabetes Type 2 and the established risk factors and possible links, such as arsenic and Agent Orange.
- Craig Newschaffer, Associate Professor of Epidemiology at Johns Hopkins University Bloomberg School of Public Health spoke on autism, noting thalidomide, organic mercury, and genetic links as possible triggers.
- Patricia Fraser, M.D., Assistant Professor of Medicine at Harvard University School of Medicine, Brigham and Women's Hospital, presented on Lupus and Lupus-prone populations and oxidative stress.
- David O. Carpenter, M.D., Director, Institute of Health and the Environment, spoke on the health effects related to proximity to PCB-contaminated hazardous waste sites in New York and the low birth weight and residential proximity to PCB-contaminated waste sites.
- Barbara DeBraga, R.N., Banner Health System, discussed a Leukemia cluster in Fallon, N.Y., how the community handled the situation, what worked, and what didn't.
- Victoria Persky, M.D., Internist, Erie Family Health Center, presented the Asthma Prevention Program in the Chicago Community, and how the community handled the asthma incidence.
- Thomas Burke, Ph.D., Director, Center of Excellence in Community Environmental Health Practice, Johns Hopkins University Bloomberg School of Public Health, summarized the report from the Pew Environmental Health Commission, "Why the Country Needs a Nationwide Health Tracking System."

If you would like more information on the topics presented at the conference, please contact Judy Murphy at jumurphy@state.mt.us

WRAP-UP AND NEXT STEPS

Marjean ended the meeting by asking for comments on new issues or other business, future agenda items, and ideas on future speakers. Prioritizing Medicaid/Medicare data uses was discussed, as well as the different possibilities in abstracting such data. There was a query as to the timeframe for the Community Needs Assessments, where the sites are, and what each site will be looking at specifically. Marjean explained that the communities will be starting the needs assessment process soon, and it may be possible to have reports from the sites presented at future meetings. Dr Shepard suggested that we discuss further what criteria may be used to prioritize environmental public health issues in Montana.

The next meeting is scheduled for Thursday, February 26, 2004. The meeting will be held in Helena with the exact location to be announced later. Marjean thanked the attendees for their participation, and the meeting adjourned at 12:00 p.m.

We will strive to find a site for the next meeting that allows everyone around the table and look into providing options for those who cannot travel but want to participate.